

ABSTRACT OF THE DISCLOSURE

A coating admixture, method of coating and substrates coated thereby, wherein the coating contains colloidal silica, colloidal alumina, or combinations thereof; a filler such as silicon dioxide, aluminum oxide, titanium dioxide, magnesium oxide, calcium oxide and boron oxide; and one or more emissivity agents such as silicon hexaboride, carbon tetraboride, silicon tetraboride, silicon carbide, molybdenum disilicide, tungsten disilicide, zirconium diboride, cupric chromite, or metallic oxides such as iron oxides, magnesium oxides, manganese oxides, chromium oxides, copper chromium oxides, cerium oxides, terbium oxides, and derivatives thereof. In a coating solution, an admixture of the coating contains water. A stabilizer such as bentonite, kaolin, magnesium alumina silicon clay, tabular alumina and stabilized zirconium oxide is also added.